DOCUMENT RESUME

ED 376 303 CE 067 568

TITLE	Career Map Development Guide.
INSTITUTION	Wisconsin Univ., Madison. Center on Education and Work.
SPONS AGENCY	Wisconsin State Board of Vocational, Technical, and Adult Education, Madison.
PUB DATE	93
NOTE	40p.; Developed by the State Tech Prep Leadership Group Mapping Workgroup.
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Career Planning; *Course Selection (Students); Curriculum Design; High Schools; *Models; *Occupational Clusters; *Statewide Planning; Two Year Colleges; *Vocational Education
IDENTIFIERS	Curriculum Mapping; *Tech Prep; *Wisconsin

ABSTRACT

This guide is intended to assist tech prep consortia/councils and high schools throughout Wisconsin in developing tech prep career maps. In the first section, a tech prep career map is defined as a counseling resource that presents a recommended sequence of specific courses and experiences designed to enable high school students to develop written career plans that will increase their competency levels and prepare them to make successful transitions to postsecondary education or work. The required and optional components of career maps are listed. Outlined in the next two sections are the responsibilities of tech prep consortia/councils and high schools with regard to development, dissemination, and use of tech prep career maps. The terms "occupational cluster" and "subcluster" are defined, and their relevance to the process of determining/organizing secondary-level course work is explained. Guidelines to using tech prep career maps to create meaningful learning experiences are presented. Appended are the following: diagram illustrating the relationship among clusters, subclusters, and instructional programs; sample clusters, subclusters, and instructional programs; and sample tech prep career maps. (MN)

Career Map

Development Guide

This guide was developed by the State Tech Prep Leadership Group (TPLG) Mapping Workgroup. The guide is to assist Tech Prep (TP) consortium/councils and high schools in the development of career maps. You are encouraged to review the entire guide and then customize your career maps to meet the needs of students in your consortium/council or high school.

Fall, 1993

Table of Contents

TPLG Mapping Workgroup Recommendations

Recommendations

1. Each consortium will use existing occupational cluster and Wisconsin Techincal College System (WTCS) subcluster models for the interim. ****TPLG Curriculum Cluster Workgroup** will address clustering issues and explore the possibility of developing standard cluster/subcluster models. *(See Appendix A)*

2. Each consortium will develop subcluster maps incorporating all of the technical college programs in that consortium based on the *Recommended Mapping Components and Processes*.

3. Each consortium will develop/modify high school maps using the *Recommended Mapping Components and Processes*.

Definition/Purpose of Tech Prep Career Maps

A Tech Prep Career Map presents a recommended sequence of specific courses and experiences designed to build stronger foundations, increase competency levels and prepare high school graduates to make successful transitions to postsecondary education or work. A Tech Prep Career Map serves as a counseling resource designed to enable students to develop written career plans.

Career Map Components

Required

» WTCS Subcluster identified (*See Appendix A)*

» High school graduation requirements

» Recommended courses, electives, and experiences

» Postsecondary credit/advanced standing courses available to high school students

» Technical college program(s) of study identified

Optional

« Recommended cocurricular activities

« Entry level knowledge and skills for post-secondary programs

« Demographic, labor market, waiting list and/or placement information for technical college programs

« Related postsecondary baccalaureate degree programs and other career opportunities

« School supervised work-based learning experiences (i.e. Coop, youth apprenticeships, internships, etc.)

The Tech Prep Consortium/Council will:

- ☑ Determine the format of Career Maps based on components listed on Page 2.
- ☑ Identify WTCS subclusters to be used for developing Career Maps. Subclusters should group related technical college programs requiring similar preparation. Many technical colleges have already grouped their programs in this way. *(See Appendix A & B)*
- ☑ Develop prototypic maps *(See Appendix C)* for each subcluster. Prototypic maps should include the required components and advocate the use of applied courses (i.e. CORD materials) in addition to traditional college prep courses.
- ☑ Assemble prototypic maps for each subcluster and templates for high school maps into a Consortium/Council Mapping Resource Guide and distribute to consortium schools for development of customized career maps. *(See Appendix C)*
- ☑ Provide technical assistance to high school teams/committees as they work to customize career maps for their school.

Important: There must be significant technical college involvement in the development of the maps at the consortium level. In particular, technical college consortium representatives should be involved in:

- developing subcluster groupings of technical college programs
- identifying entry level competencies for each subcluster
- providing program placement data
- providing information on career opportunities in subcluster areas

The High School will:

- Assemble a high school career mapping committee. Suggested members include academic and vocational faculty, guidance counselor(s), curriculum coordinator, administrator, and technical college representative.

- Define the purpose of the committee.

> **Sample Purpose Statement:**
> The purpose of this committee is to develop Tech Prep Career Maps to outline the courses needed by students to prepare for postsecondary programs related to their chosen career goals. This committee will develop a procedure for our school that will incorporate the use of career maps, career portfolios, interest inventories, and other career information in helping each student to develop a written career plan. This career plan will be used by the student to assist in making postsecondary decisions such as college, technical college, apprenticeship, work, or the military.

- Customize maps for each subcluster to meet local needs using your consortium's Mapping Resource Guide. *(See Appendix C)*
  1. Adapt or adopt prototypic map format from your consortium's Mapping Resource Guide.
  2. Identify first subcluster to begin customizing.
  3. Indicate and recommend courses to meet high school graduation requirements. Advocate the use of applied courses in addition to traditional college prep academics to meet high school graduation requirements.
  4. Identify recommended electives appropriate for the subcluster area.
  5. Identify postsecondary credit/advanced standing courses.
  6. Identify technical college program of study.

Optional

7. Identify appropriate cocurricular activities.
8. Identify courses that address entry level knowledge and skills for postsecondary programs in the subcluster area.
9. Identify related subclusters.
10. Identify appropriate demographic and labor market information.
11. Identify other postsecondary options such as baccalaureate degree programs and other career opportunities.
12. Identify school supervised work-based learning opportunities (ie. Coop, youth apprenticeships, internships, etc.)
13. Include other information at local discretion.

- Follow steps 1-13 for the remaining subcluster areas.
- Inservice staff on Tech Prep Career Maps and provide an opportunity for staff members to give feedback and to get involved in the process.
- Develop a career guidance procedure in which students use Tech Prep Career Maps in developing written career plans.
- Use the information included in your subcluster maps as the basis for developing or validating the broad occupational clusters you use to organize your high school coursework.

Cluster/Subcluster Information

Definitions:
Occupational Clusters are broad categories of occupations that form the basis for initial career exploration and discovery. Occupational clusters are similar to, but not necessarily the same as traditional vocational education clusters. Typically, a high school (or school district) will identify five or six occupational clusters and will use these clusters for career exploration and guidance purposes. Schools can also use these clusters as a focus for curriculum integration.

Subclusters are more narrow and specific than occupational clusters and reflect another step in the process of setting a career goal. At this point the student will target a subcluster of postsecondary programs that relate to their identified career goal. Technical college programs can be grouped into anywhere from 15-25 subclusters. In most cases, programs in a subcluster would require the same types of student preparation at the secondary level. For this reason, Tech Prep Career Maps are initially developed at the subcluster level.

	Example:
Cluster:	Business/Marketing
Subclusters	Business Administration Office Technology Computer Info Systems Marketing

Clusters, Subclusters, and Secondary Course Work:
Clusters & subclusters at the secondary level: A Tech Prep Career Map will focus on a specific subcluster (an occupational area into which a local technical college has grouped similar occupational programs). To bridge the gap between what is known about a student (interests and abilities) and how this information relates to specific subclusters, the high school committee may want to group subclusters into broad occupational clusters. *(See Appendix A)*

Career maps and secondary coursework: Using the information included in the subcluster maps high schools may uncover gaps in coursework offered, core courses that ought to be common to all or most subclusters, and/or coursework that has outlived its usefulness. The more meaningfully coursework is organized the more useful it will be to students as they attempt to use awareness of their interests, aptitudes, preferences, likes and dislikes as a basis for focusing on a more specific postsecondary subcluster.

Using Career Maps to Create Meaningful Learning Experiences

Overcoming "aimlessness" is the motive behind career mapping. According to Howard Gardner,

> *"The single most important contribution education can make to a child's development is to help him toward a field where his talents best suit him, where he will be satisfied and competent. We've completely lost sight of that. Instead, we subject everyone to an education where, if you succeed, you will be best suited to be a college professor. And we evaluate everyone according to whether they meet that narrow standard of success.*
>
> *We should spend less time ranking children and more time helping them to identify their natural competencies and gifts and cultivate those. There are hundreds and hundreds of ways to succeed and many, many different abilities that will help you get there."*

Career mapping of necessity assumes that students have a relatively good, albeit tentative, sense of where thy are headed by the end of the 10th grade! Yet most students who are currently completing high school do not have viable postsecondary goals or plans to achieve them. Many are not aware of the numerous options available to them.

New curriculum, or at least new curriculum configurations, better suited for helping students discover their talents and the multitude of places where these talents might best be "employed", are desperately needed. Configurations are needed which have as their major purpose helping students explore and ultimately recognize how all of their interests, aptitudes, abilities, and preferences relate to different workplace environments...so that they can make informed 11th and 12th grade **and** postsecondary education choices.

Career maps developed in response to this guide will not be as useful to students as they ought to be until students entering the eleventh grade have tentative life's work goals. Students also need to recognize the importance of systematically planning to achieve their tentative goals and must possess the planning skills necessary to make viable educational choices.

Experiences organized around the existing vocational education clusters are typically far too narrow in scope and tend to prematurely limit a student's view of

his/her options. There is as much diversity within the existing vocational education clusters as there is between them! Most of the new occupations created during the last decade do not even logically fit into one of the existing clusters.

New ways of organizing learning experiences to help students focus on their life's work are currently being tested around the United States. At Woodland High School in Woodland, California, for example, they have begun to restructure the way curriculum and instruction are delivered to students. They say that kids were not seeing the connection between education and their personal lives. Their Career Opportunity Paths in Education (COPE) results in all students being placed in one of six career paths upon entering the tenth grade. Based upon the student's academic goals and career interests, a four year academic/career plan is developed. The role of career maps in Woodland is obvious!

Existing research on personality types and work environments might have even greater implications for how learning experiences ought to be organized in order to facilitate life's work planning. Holland's book *Making Vocational Choices: A Theory of Careers*, for example, suggests that in our culture most persons can be categorized as one of six types: realistic, investigative, artistic, social, enterprising and conventional. He also maintains that there are six parallel environments which are dominated by the same personality type. If his assumptions are correct, a major purpose of education should be to provide learning experiences which will help students discover their dominant personality type so that they can ultimately exercise their skills, talents and abilities and take on agreeable problems and roles.

There are many other models that need to be investigated. Even the new *Dictionary of Occupational Titles* includes information pertaining to the personal attributes and skills jobs require.

A statewide committee will soon be working to systematically investigate ways K-12 schools can organize learning experiences to assist students to zero in on meaningful and appropriate life's work goals. Learning experiences need to be organized to help students discover their talents and the "fields" or "environments" where these talents might best be "employed".

This committee, comprised of K-12, technical college and university educators, will systematically research, discuss, and propose a new student needs driven way of reorganizing learning experiences which will enable all students to:

- systematically explore (on an ongoing basis) and document (via a portfolio) their personal attributes (i.e. a profile of their interests, aptitudes, talents - both "academic" and "technical" - preferences, likes, dislikes, etc.)

- become aware of the critical need for postsecondary education and the breadth and scope of the exciting postsecondary education experiences available.

- identify and begin to focus on the broad range of postsecondary experiences (subclusters) that require or "employ" the student's profiled characteristics.

- focus on broad, albeit tentative, postsecondary goals and develop viable plans to achieve them.

- recognize the importance and/or consequences of emphasizing ("majoring in") specific elective coursework available to them during their junior and senior years of high school.

After studying and reflecting on available options, the committee will identify what it believes are the most desirable model(s) for the State of Wisconsin. State level policy makers will then be encouraged to adopt this model and recommend that schools use it as a coherent means of facilitating better life's work planning.

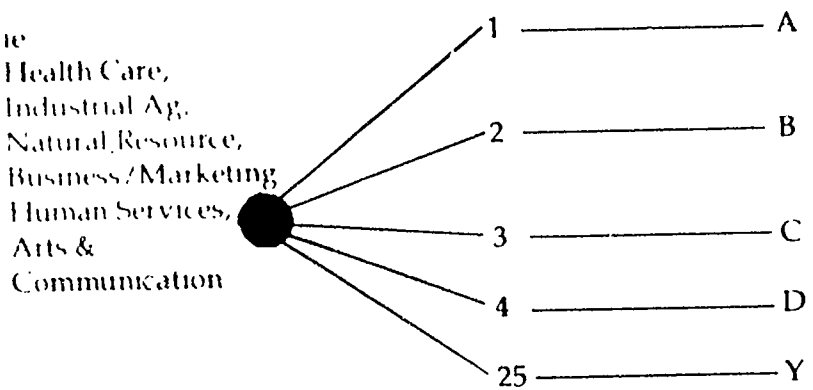
Diagram to Show Relationship Among Clusters, Subclusters & Programs

High School

Clusters (3-6)

Subclusters (25)

Career Map



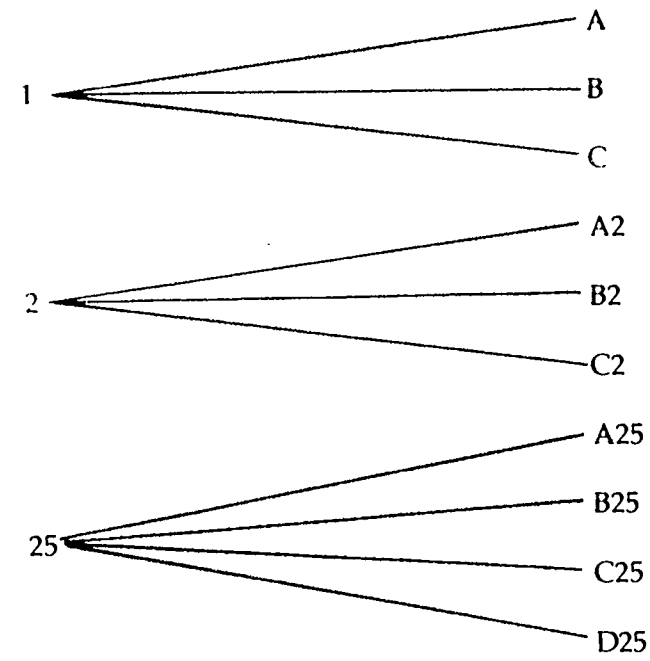
Components:

- Required courses for graduation
- Recommended required courses where options exist
- Recommended elective courses
- Recommended technical college credit courses
- Recommended cocurricular activities (to include job shadowing, service to community)
- List of entry level competencies
- List of postsecondary options based on interests, abilities (college, technical college, apprenticeship, work, etc.)
- List of specific career choices based on interests and abilities

Technical College

Subclusters (25)

Programs (183)



Appendix B: Sample Cluster, Subcluster, Program

WESTERN WISCONSIN TECHNICAL COLLEGE
304 North Sixth Street
La Crosse, WI 54602-0908

Career Clusters: Business

1. **Business Administration Sub-Cluster:**
   - Accounting (A.D.)
   - Business Administration-Personnel (A.D.)
   - Finance (A.D.)
   - Paralegal (A.D.)
   - Supervisory Management (A.D.)*
2. **Computer Information Systems Sub-Cluster:**
   - Microcomputer Specialist (A.D.)
   - Programmer/Analyst (A.D.)
   - Office Computer Specialist (V.D.)
3. **Marketing Sub-Cluster:**
   - Fashion Merchandising (A.D.)
   - Marketing (A.D.)
   - Retail Marketing (A.D.)
4. **Office Technologies Sub-Cluster:**
   - Administrative Assistant-Information Processing (A.D.)
   - Medical Secretary (A.D.)
   - Legal Secretary (A.D.)
   - Office Assistant (V.D.)

Career Clusters: Home Economics

5. **Child and Adult Care Services Sub-Cluster:**
   - Child Care and Development (A.D.)
   - Community Development Disabilities Associate (A.D.)
6. **Interior Design Sub-Cluster:**
   - Interior Design
7. **Food Service and Production Sub-Cluster:**
   - Food Service Management (A.D.)
   - Food Production Specialist (V.D.)

KEY: (A.D.) Associate Degree
(V.D.) Vocational Diploma
(V.C.) Vocational Certificate

Career Clusters: Human Services

8. **Diagnostic and Therapeutic Health Services Sub-Cluster:**
   - Dental Hygiene (A.D.)
   - Electroneurodiagnostic Technology (A.D.)
   - Medical Laboratory Technician (A.D.)
   - Physical Therapist Assistant (A.D.)
   - Radiography (A.D.)
   - Respiratory Care Practitioner (A.D.)

9. **Health Care Administrative Services Sub-Cluster:**
   - Medical Record Technician (A.D.)
   - Central Service Technician (V.D.)
   - Health Unit Coordinator (V.D.)

10. **Health Care Support Services Sub-Cluster:**
    - Dental Assistant (V.D.)
    - Medical Assistant (V.D.)
    - Surgical Technician (V.D.)

11. **Nursing Sub-Cluster:**
    - Associate Degree Nursing-RN (A.D.)
    - Homemaker/Home Health Aide (V.C.)
    - Nursing Assistant (V.C.)
    - Practical Nursing (V.D.)

12. **Public Safety Services Sub-Cluster:**
    - Protective Services (A.D.)
    - Emergency Medical Technician (V.C.)
    - Police Basic Training (V.C.)

Career Clusters: Agriculture

13. **Agriculture Sub-Cluster:**
    - Agribusiness and Science Technology (A.D.)
    - Farm Business and Production Management (V.D.)*

Career Clusters: Industrial Technologies

14. Construction Sub-Cluster:

- Air-Conditioning (A.D.)
- Fabrication Welding (V.D.)
- Refrigeration Servicing (V.D.)
- Welding (V.D.)
- Wood Technics (V.D.)

15. Electronics Sub-Cluster:

- Biomedical Electronics (A.D.)
- Electromechanical Technology (A.D.)
- Electronics (A.D.)
- Electronic Servicing (V.D.)

16. Graphics/Printing Sub-Cluster:

- Commercial Art (A.D.)
- Printing and Publishing (Electronic Publishing) (A.D.)
- Visual Communication (A.D.)
- Printing (V.D.)

17. Manufacturing Sub-Cluster:

- Industrial Engineering Technician (A.D.)*
- Mechanical Design Technician (A.D.)
- Quality Assurance Technician (A.D.)*
- Machine Tooling Technics (V.D.)
- Machine Tool Operation (V.D.)

18. Transportation Sub-Cluster:

- Auto Body and Paint Technician (V.D.)
- Automotive Technician (V.D.)
- Diesel and Heavy Equipment Technician (V.D.)

*Students are generally employed while enrolled in this program

LAKESHORE TECHNICAL COLLEGE
1290 North Ave
Cleveland WI 53015
458-4183 or 684-4408

The following career clusters and subclusters have been identified for development within the confines of the tech prep initiative. The development of a sequential course of studies into these clusters and subclusters will result in:

1. Articulation of "like" programs that need a similar academic base in high school.

2. The promotion of statewide articulation.

3. The development of entry-level competencies that assist students in high school course selection.

CAREER CLUSTER: BUSINESS/MARKETING

Subcluster: Business Administration

- Accounting (AD)
- Finance (AD)
- Materials Management (AD)
- Supervisors Management (AD)*

Subcluster: Computer Information Systems

- Microcomputer Specialist (AD)
- Programmer/Analyst (AD)

Subcluster: Marketing

- Industrial Marketing (AD)*
- Marketing (AD)

Subcluster: Office Technologies

- Administrative Assistant-Information Processing (AD)
- Administrative Assistant-Secretarial (AD)
- Court and Conference Reporting (AD)
- Medical Secretary (AD)
- Office Assistant (VD)
- Paralegal (AD)

- Students are generally employed while enrolled in this program.

CAREER CLUSTER: FAMILY AND CONSUMER EDUCATION

Subcluster: Child and Adult Care Services

- Child Care Services (VD)

CAREER CLUSTER: HEALTH SERVICES/MEDICAL SERVICES

Subcluster: Diagnostic and Therapeutic Health Services

- Radiography (AD)

Subcluster: Health Care Support Services

- Optician/Manager (AD)
- Dental Assistant (VD)
- Eyecare Technician (VD)
- Medical Assistant (VD)
- Pharmacy Technician (VD)

Subcluster: Nursing

- Nursing-Associate Degree—RN (AD)
- Nursing Assistant (VAD)

Subcluster: Public Safety Services

- Police Science (AD)
- Emergency Medical Technician-Basic (VAD)
- Paramedic (VAD)*
- Police Basic Recruit Training (VAD)*

Subcluster: Environmental Safety Services

- Fire Science (AD)*
- Hazardous Material Handling Technician (AD)
- Health Physics Technician (AD)

* Students are generally employed while enrolled in this program.

CAREER CLUSTERS: AGRIBUSINESS/AGRISCIENCE

Subcluster: Agribusiness

- Farm Business and Production Management (VAD)*

Subcluster: Animal Science

- Equine Management (AD)
- Dairy Herd Management (VD)

CAREER CLUSTER: TECHNICAL/INDUSTRIAL

Subcluster: Electronics

- Electro-Mechanical Technology (AD)
- Electronics (AD)
- Electrical Power Engineering Technician (AD)
- Electronics Servicing (VD)

Subcluster: Graphics/Printing

- Printing (VD)

Subcluster: Manufacturing

- Industrial Engineering Technician (AD)*
- Mechanical Design Technician (AD)
- Machine Tool Operation (VD)
- Welding/Fabrication and Maintenance (VAD)

Subcluster: Transportation

- Auto Body and Paint Technician (VD)
- Automotive Maintenance Technician (VD)

AD = Associate Degree
VD = Vocational Diploma
VAD = Vocational Adult Diploma

* Students are generally employed while enrolled in this program.

WESTERN WISCONSIN TECHNICAL COLLEGE
304 North Sixth Street
La Crosse, WI 54602-0908

TECH PREP
WESTERN WISCONSIN

BUSINESS

BUSINESS ADMINISTRATION

CAREER CLUSTER MAP (1)

TECH PREP STAFF:
Phone: (608) 785-9089

Jerry Redman, Ph.D.
Coordinator

Kerry Hogan
Curriculum Specialist

Ann Stansbury
Secretary

January 1993

WWTC PROGRAMS:

- Accounting
- Business Administration-Personnel
- Finance
- Paralegal
- Supervisory Management

CAREER OPTIONS:

- Accountant
- Account Payable/Receivable Clerk
- Administrative Assistant
- Bookkeeper
- Cashier/Teller
- Claims Adjuster/Agent
- Customer Service Representative
- Financial Manager
- Human Resource Specialist
- Inventory Control Manager
- Legal Assistant
- Loan Officer
- Paralegal
- Personnel Clerk
- Office/Operations Manager
- Payroll/Cost Accountant
- Program Supervisor/Foreman

FOR MORE INFORMATION PLEASE CALL:

Jeff Naill, Chair
Business
(608) 785-9167

Robert Franks, Ph.D., Dean
Business
(608) 785-9168

WWTC PLACEMENT DATA:

Program	1988-1991 # Graduates	1988-1991 Graduates Employed	1988-1991 Graduates Employed in Area of Training	Graduates Responding to Placement Reports	1990-1991 Median Monthly Salary for Graduates
Accounting	116	105	88	109	$ 1039
Business Administration-Personnel	59	39	19	53	$ 1083
Finance	57	45	31	57	$ 1039
Paralegal	*32	*20	*10	*28	$ 1004
Supervisory Management	19	17	10	18	**

*No data available for 1988-1989

**Students are already employed while enrolled in this program.

RECOMMENDED HIGH SCHOOL COURSES FOR BUSINESS ADMINISTRATION CLUSTER

YEAR	ENGLISH	SCIENCE	MATH	SOCIAL SCIENCE	OTHER	OCCUPATION RELATED
12	English 4 and/or Applied Communications			Economics		Business Law Computerized Accounting
11	English 3	Principles of Technology II (optional)	Business Math and/or Algebra I	Government		Bookkeeping/Accounting Entrepreneurship
10	English 2	Principles of Technology I and/or General Science	Applied Math II	Geography	Physical Education	Introduction to Business General Marketing Machine Calculation
9	English 1	Biology and/or Applied Biology/Chemistry	Applied Math I	History	Physical Education/Health	Keyboarding Introduction to Microcomputers

January 1993

☐ Number of years required in each academic area by the Department of Public Instruction

BUSINESS ADMINISTRATION CAREER CLUSTER MAP

KEY: Accounting (A)Associate Degree - 68 Credits
Business Administration-Personnel (BA) Associate Degree - 68 Credits
Finance (F) Associate Degree - 67 Credits
Paralegal (P) Associate Degree - 64 Credits
Supervisory Management (SM) Associate Degree - 66 Credits

01/93

TERM	ENGLISH	SCIENCE	MATH	SOCIAL SCIENCES	OCCUPATIONAL			ELECTIVE
13 SPRING	**Written Communications** 801-195, 3 CR., (A)(F) **Speech** 801-198, 3 CR., (BA) **Technical Reporting** 801-197, 3 CR., (SM)		**Mathematics of Finance** 102-148, 3 CR., (F)	**Introduction to Psychology** 809-198, 3 CR., (A) **Economics** 809-195, 3 CR., (P) **Introduction to Psychology** 809-198, 3 CR., (P)	**Accounting Principles II** 101-124, 4 CR., (A)(F) **Computerized Accounting Systems** 101-125, 3 CR., (A) **Business Law** 102-130, 3 CR., (A)(SM) **Human Resources Policy and Administration** 102-125, 3 CR., (BA) **Occupational Safety and Health** 102-174, 2 CR., (BA)	**Introduction to Microcomputers** 107-104, 3 CR., (BA) **Supervision Principles** 196-102, 3 CR., (BA) **Money and Banking** 102-124, 3 CR., (F) **Advanced Spreadsheet Concepts** 107-124, 2 CR., (F) **Income Tax Accounting I** 101-165, 4 CR., (P)	**Criminal Law** 1101-24, 2 CR., (P) **Litigation** 110-138, 4 CR., (P) **Management Theories and Organizational Study** 196-144, 3 CR., (SM) **Managing for Quality** 196-192, 3 CR., (SM) **Performance Appraisal and Development** 196-135, 3 CR., (SM)	**Elective** 3 CR., (BA)(SM)
13 FALL	**Written Communications** 801-195, 3 CR., (P)(SM)(BA)		**Business Math** 105-117, 3 CR., (A)(F)(BA)	**Economics** 809-195, 3 CR., (A)(BA)	**Accounting Principles I** 101-114, 4 CR., (A)(F)(P)(SM) **Payroll Accounting** 101-129, 2 CR., (A) **Machine Calculation** 103-117, 1 CR., (A) **Keyboarding Fundamentals** 106-133, 1 CR., (A) **Introduction to Microcomputers** 107-104, 3 CR., (A)(F)(P)	**Introduction to Business** 102-106, 3 CR., (BA) **Community Services** 102-119, 2 CR., (BA) **Business Organization and Management** 102-128, 3 CR., (BA)(F) **General Finance** 102-116, 3 CR., (F)	**Introduction to Paralegal and Ethics** 110-115, 5 CR., (P) **Environmental & Safety Management** 196-186, 2 CR., (SM) **Supervision Principles** 196-102, 3 CR., (SM) **Labor Relations** 196-114, 3 CR., (SM)	

BUSINESS ADMINISTRATION CAREER CLUSTER MAP

KEY: Accounting (A)Associate Degree - 68 Credits
Business Administration-Personnel (BA) Associate Degree - 68 Credits
Finance (F) Associate Degree - 67 Credits
Paralegal (P) Associate Degree - 64 Credits
Supervisory Management (SM) Associate Degree - 66 Credits

01/93

TERM	ENGLISH	SCIENCE	MATH	SOCIAL SCIENCES	OCCUPATIONAL			ELECTIVE
14 S P R I N G				**Introduction to Psychology** 809-198, 3 CR., (BA)(F)(SM) **Economics** 809-195, 3 CR., (F)(SM) **Introduction to Sociology** 809-196, 3 CR., (A)	**Accounting Spreadsheets (Computerized)** 101-138, 3 CR., (A) **Cost Accounting II** 101-159, 3 CR., (A) **Intermediate Accounting II** 101-155, 4 CR., (A) **Seminar in Accounting** 101-163, 2 CR., (A) **Organizational Training and Development** 102-159, 3 CR., (BA) **Risk Management and Insurance** 102-162, 3 CR., (BA)(F)	**Compensation Management** 102-172, 3 CR., (BA) **Human Resource Practices** 102-183, 3 CR., (BA) **Corporate Finance** 102-166, 3 CR., (F) **Credit Procedures** 102-187, 3 CR., (F) **Administrative Law** 110-155, 2 CR., (P) **Administration of Estates** 110-168, 4 CR., (P)	**Introduction to Corporate Law** 110-172, 3 CR., (P) **Internship** 110-175, 1 CR., (P) **Introduction to Microcomputers** 107-104, 3 CR., (SM) **Productivity Enhancement** 196-170, 3 CR., (SM) **Fundamentals of Budget Analysis** 196-184, 3 CR., (SM)	**Elective** 3 CR., (A)(BA)(F)(P) **Elective** 3 CR., (P)
14 F A L L	**Speech** 801-198, 3 CR., (A)(F)(P)		**Business Math** 105-117, 3 CR., (SM)	**Introduction to Sociology** 809-196, 3 CR., (BA)(F)(P)(SM)	**Cost Accounting I** 101-149, 3 CR., (A) **Intermediate Accounting I** 101-145, 4 CR., (A) **Income Tax Accounting I** 101-165, 4 CR., (A) **Accounting Principles I** 101-114, 4 CR., (BA) **Interviewing Skills** 102-142, 3 CR., (BA) **Equal Employment Opportunities** 102-158, 3 CR., (BA)	**Financial Planning and Investment** 102-177, 3 CR., (F) **Real Estate Finance** 102-185, 3 CR., (F) **Family Law** 110-126, 3 CR., (P) **Labor Relations** 196-114, 3 CR., (BA) **Business Law** 102-130, 3 CR., (F) **Debtor-Creditor Relations** 110-143, 4 CR., (P)	**Legal Research and Writing** 110-157, 4 CR., (P) **Human Resource Management** 196-193, 3 CR., (SM) **Leadership Development** 196-190, 3 CR., (SM) **Supervision** 196-191, 3 CR., (SM)	**Elective** 3 CR., (A)(F)(SM)
Total Credits	(A): 6 (BA): 6 (F): 6 (P): 6 (SM): 6	(A): 0 (BA): 0 (F): 0 (P): 0 (SM): 0	(A): 3 (BA): 3 (F): 6 (P): 0 (SM): 3	(A): 9 (BA): 9 (F): 9 (P): 9 (SM): 9	(A): 44 (BA): 44 (F): 40 (P): 43 (SM): 42			(A): 6 (BA): 6 (F): 6 (P): 6 (SM): 6

WESTERN WISCONSIN TECHNICAL COLLEGE

Name: _____ **School:** _____

Cluster: _____ **Date:** _____

CAREER CLUSTER MAP

YEAR	ENGLISH	SCIENCE	MATH	SOCIAL SCIENCE	OTHER	OCCUPATIONAL RELATED
12						
11						
10						
9						

☐ Number of years required in each academic area by the Department of Public Instruction

Career Map for Electro-Mechanical Technology, Electronics, Electrical Power Engineering Technician, and Electronics Servicing

HIGH SCHOOL GRADUATE WORK OPPORTUNITIES

Electrician Helper
Wire Puller
Installer
Military

APPRENTICESHIPS

Construction Electrician
Industrial Electrician

TECHNICAL COLLEGE GRADUATE JOB OPPORTUNITIES

Maintenance Mechanic
Electro-Mechanical Technician
Electronic Test Technician
High Power Lab Technician
Operator Technician
Electronic Service Technician

Starting salary range: $1126-$2222
Placement-Excellent

TECH TO COLLEGE TRANSFER

UW-Stout

SCHOOL:

12							
11							
10							
9							
	Science	Soc. Studies	Math	English	Other	Electives -	
						Career	General
Required Credits for Graduation							

EDFACsublineOblanks 0003

RECOMMENDED COURSES & CREDITS FOR TECH. COLLEGE ADMISSION

Math–4 credits: Applied Math I-II & Geometry or Trigonometry
Physical Science–3 credits: Principles of Technology I-II; Applied Biology/ Chemistry
Communications–4 credits, to include Applied Comm.
Social Science–3 credits

ADVANCED STANDINNG

Credit given for High School Electronics I-II

Date _____

EDFACsublinepe 0002p 3

Career Map in Electronics (E), Electro-Mechanical Technology (EM), Electrical Power Engineering Technician (EP), and Electronic Servicing (ES)

14	E-Technical Physics II-3cr E-Technical Physics I-3cr EP-Thermodynamics-3cr				Computer Maint. & Svc.-3cr VCR Maint. & Svc.-2cr Electronic Troubleshooting I-5cr Electronic Troubleshooting II-5cr Electronic Systems II-5cr Electronic Systems I-5cr	Electronic Layout & Simls.-2cr Computer Systems I-3cr Basic Programming-3cr	Robotics-2cr Electro-Mechanical Systems-3cr	Instrumentation & Controls II-3cr Power Transmission & Distribution-3cr Power Generation Plants II-4cr Electrical Machines-4cr	Motors & Controls II-2cr Microprocessors-4cr Programmable Controllers-3cr Digital Electronics-3cr	Any A.D. course is allowable Electronic Troubleshooting-3cr Computer Systems II-3cr Computer Systems III-4cr
13	ES-Science Applications-1cr Pneumatics-2cr Fluid Power-4cr	ES-Social Science 2-cr Economics-3cr Contemporary American Society-3cr Psychology of Human Relations-3cr	ES-Math for Elec. Svc. II-2cr ES-Math for Elec Svc I-3cr Advanced Algebra-3cr Trig-3cr Algebra-3cr	ES-Employment & Job Seeking Comm-2cr Technical Reporting-3cr Written Comm-3cr Oral Interpersonal Comm-3cr	Electronic Applications-2cr		Mechanisms-2cr	Electrical Drafting & Standards-2cr Instrumentation & Control I-4cr Power Generation Plants I-3cr	Motors & Controls I-3cr AC/DC Circuit Analysis-2cr Principles of Elect-4cr DC Electronics-3cr AC Electronics-3cr	
	Science	Soc. Studies 9	Math 9	English 9	Other-ES	Other-E	Other-EM	Other-EP	Core	Electives 6
	EP-3; ES-3; EM-6; E-6	ES-2	ES-5	ES-2					EP-16; ES-16; EM-25; E-24	ES-6

ES-57 cr; E-68 cr; EM-68 cr, EP-68 cr

Date: _____

Tech Prep
Technical Preparation

Your Career Map

in

Name:

School:

Date:

Entry Level Competencies/Enablers

Communications

- Employ a variety of vocabulary-building strategies
- Comprehend and interpret a range of text structures—technical text, prose, graphs, manuals, schedules
- Evaluate and react critically to what has been read
- Interpret and communicate information from content-specific text
- Apply various reading strategies and roles according to the type, purpose, and difficulty of materials being read
- Organize, express, and support ideas logically
- Employ strategies to gain information and formulate ideas
- Evaluate and revise materials for adequacy, relevancy, and word choice
- Edit for proper sentence structure, vocabulary, and spelling
- Write legibly
- Interpret and respond to verbal and nonverbal messages
- Summarize and paraphrase information
- Use strategies to record and recall information
- Communicate ideas to a variety of audiences
- Use a variety of materials and strategies to support the presentation
- Use nonbiased language

Social Science

- Demonstrate citizenship, craftsmanship, scholarship, and leadership as an integral part of a community
- Develop a conceptualized world view of political, cultural, and economic systems
- Purposefully and actively engage in creating strategies and policies to affect change in one's individual life and society
- Assess cause effect relationships within the context of the political, cultural, and economic systems
- Determine the validity of truth claims by evaluating evidence

Mathematics

- Perform basic operations including exponentiation and scientific notation with real numbers with and without calculators
- Apply ratios, portions, and percents in a variety of situations
- Solve word problems
- Provide arguments, both written and oral, that support a conclusion
- Use estimation strategies to determine the reasonableness of results
- Translate situations involving variable quantities into mathematical statements
- Demonstrate the ability to solve problems using linear equations and one unknown
- Simplify and evaluate algebraic expressions
- Measure to an appropriate standard in both English and metric systems and convert within and between the systems
- Compute parameters, areas, and volumes as appropriate for plane and solid figures
- Gather, organize, and display data
- Interpret graphs, tables, and charts
- Use data to make inferences
- Use geometry to represent and solve problems
- Apply principles of congruency, similarity, and symmetry in solving problems
- Represent problem situations using the Cartesian plane
- Solve right triangles using the Pythagorean theorem and trigonometric ratios
- Apply experimental and theoretical probability as appropriate to solve problems

Physics

Safe and proper use of laboratory apparatus
Utilize scientific method
Use the different systems of measurement
Assimilate and analyze laboratory data
Apply the concepts of force as they relate to motion
Recognize the importance of energy as it pertains to mechanical, thermal, and electrical systems
Apply conservation laws to systems
Illustrate an understanding of the basic fluid mechanics
Exhibit an understanding of the basic principles of wave motion

Career Map for

Entry Level Competencies in

WORK OPPORTUNITIES (upon high school graduation)	APPRENTICESHIPS	TECHNICAL COLLEGE PROGRAMS*	4-YEAR COLLEGE OR TECH-TO-COLLEGE PROGRAMS

SCHOOL:

12							
11							
10							
9							
	Science	Soc. Stud.	Math	English	Other	Electives	
						Career	General
Required Credits for Graduation							

(d = suggested)

CarGrfdBlank 0193

RECOMMENDED CAREER ENHANCEMENT COURSES

U.W. REQUIREMENT

DATE _____

* not all-inclusive list—see your counselor for other occupational/professional programs

CarMapBlank 0118R2e 2

Career Map in

14								
13								
Required Credits for Graduation	Science	Soc. Studies	Math	English	Core	Core	Other	Electives

Date: _____

Tech Prep
Technical Preparation

Your Career Map

in

Name:

School:

Date: